Amendments to the Claims

1. (Currently Amended) System for enhancing ~~the~~ security of ~~the~~ e-mails transmitted from a sender ~~(10)~~ to a receiver ~~(12)~~ over a data transmission network ~~such as Internet wherein~~, comprising:

a Message Transfer Agent (MTA) ~~(14)~~ associated with said sender ~~is in charge of~~ for transmitting over said network an original e-mail sent by said sender;

~~said system being characterized~~

~~in that~~ said MTA associated with said sender ~~includes~~ including a message splitting means ~~(16)~~ adapted to divide said original e-mail into a plurality of chunks according to a predetermined algorithm and a predetermined list of relay MTAs ~~(20, 22, 24)~~ to which are forwarded said plurality of chunks; and

~~in that it comprises~~ a chunk assembly agent ~~(28)~~ for receiving from said relay MTAs the plurality of chunks and for re-assembling ~~them~~ the plurality of chunks ~~by~~ using said predetermined algorithm in order to re-build said e-mail before sending it to said receiver.

2. (Currently Amended) The system according to claim 1, wherein each of said plurality of chunks is transmitted as a chunk e-mail having a destination address which is ~~the~~ an address of said chunk assembly agent ~~(28)~~.

3. (Currently Amended) The system according to claim 2, wherein each of said plurality of chunks is encrypted ~~by~~ using ~~the~~ a public key of said chunk assembly agent ~~(28)~~ before being transmitted over said network.

4. (Currently Amended) Method for enhancing ~~the~~ security of ~~the~~ e-mails transmitted from a sender ~~(10)~~ to a receiver ~~(12)~~ over a data transmission network ~~such as Internet~~ wherein a Message Transfer Agent (MTA) ~~(14)~~ associated with said sender is in charge of transmitting an original e-mail sent by said sender~~;~~, comprising:

~~said method being characterized in that it consists in~~

~~using an algorithm for~~ dividing said original e-mail into a plurality of chunks using an algorithm, ~~and~~

sending ~~these~~ said chunks as e-mails to different relay MTAs ~~(20, 22, 24)~~ defined in a predetermined list of relay MTAs, and

re-assembling by a chunk assembly agent said chunks in order to re-build said original e-mail by using said predetermined algorithm, before sending said original e-mail to said receiver.

5. (Currently Amended) The method according to claim 4, wherein each chunk is transmitted over said network in a chunk e-mail having a destination address which is ~~the~~ an address of said chunk assembly agent.

6. (Currently Amended) The method according to claim 4, wherein each chunk is encrypted ~~by~~ using ~~the~~ a public key of said chunk assembly agent before being transmitted, said encrypted chunk e-mail being decrypted when received by said chunk assembly agent using ~~its~~ a private key.

7. (Currently Amended) The method according to claim 6, wherein ~~the~~ text of said original e-mail is encrypted by using the public key of said receiver before being divided into a plurality of chunks.

8. (New) A security system, comprising:

a Message Transfer Agent (MTA) associated with a sender for

transmitting over a network an original e-mail sent by the sender, the MTA including a message splitting system for dividing the original e-mail into a plurality of chunks according to a predetermined algorithm and for forwarding the plurality of chunks to a plurality of relay MTAs; and

a chunk assembly agent for receiving from the relay MTAs the plurality of chunks and for re-assembling the plurality of chunks using the predetermined algorithm in order to re-build the e-mail before sending it to a receiver.

9. (New) The system according to claim 8, wherein each of the plurality of chunks is transmitted to the chunk assembly agent as a chunk e-mail having a destination address corresponding to an address of the chunk assembly agent.

10. (New) The system according to claim 9, wherein the message splitting system encrypts each of the plurality of chunks using a public key associated with the chunk assembly agent.

11. (New) A security system, comprising:

a chunk assembly agent for:

receiving from a plurality of relay Message Transfer Agents (MTAs) a plurality of chunks of an original e-mail that has been divided into the plurality of chunks according to a predetermined algorithm; and

re-assembling the plurality of chunks using the predetermined algorithm in order to re-build the e-mail before sending it to a receiver.